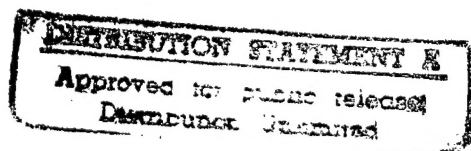


# **A SELECTIVE, ANNOTATED BIBLIOGRAPHY ON CURRENT SOUTH ASIAN ISSUES**

*August 1987*

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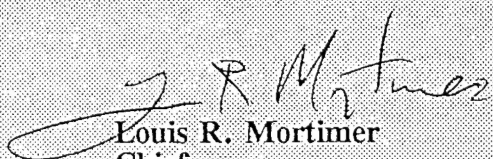
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# REPORT DOCUMENTATION PAGE

Form Approved  
OMB No. 0704-0188

Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503.

1. AGENCY USE ONLY (Leave Blank)		2. REPORT DATE <b>AUG 1987</b>		3. REPORT TYPE AND DATES COVERED Final	
4. TITLE AND SUBTITLE A Selective, Annotated Bibliography on Current South Asian Issues				5. FUNDING NUMBERS	
6. AUTHOR(S) Peter Blood      James Heitzman      Robert Levy      Russell Ross Elizabeth Curtiss      Barbara LePoer      Douglas Makeig					
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Federal Research Division Library of Congress Washington, DC 20540-4840				8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES) N/A				10. SPONSORING/MONITORING AGENCY REPORT NUMBER	
11. SUPPLEMENTARY NOTES Prepared under an Interagency Agreement					
12a. DISTRIBUTION/AVAILABILITY STATEMENT Approved for public release; distribution unlimited.				12b. DISTRIBUTION CODE	
13. ABSTRACT (Maximum 200 words)  This bibliography provides selective annotations of open-source material on two current issues: nuclear developments in South Asia, and tactics and organization of Afghan resistance groups. The monthly bibliography incorporates serials and monographs arranged alphabetically by author and title within each section.					
14. SUBJECT TERMS  South Asia      Insurgencies Afghanistan Nuclear proliferation				15. NUMBER OF PAGES	
				16. PRICE CODE	
17. SECURITY CLASSIFICATION OF REPORT  UNCLASSIFIED	18. SECURITY CLASSIFICATION OF THIS PAGE  UNCLASSIFIED	19. SECURITY CLASSIFICATION OF ABSTRACT  UNCLASSIFIED	20. LIMITATION OF ABSTRACT  SAR		

NSN 7540-01-280-5500

## PREFACE

This bibliography provides selective annotations of open-source material on two current issues:

- nuclear developments in South Asia, and
- tactics and organization of the Afghan resistance

The bibliography incorporates serials and monographs received in the previous month and is part of a continuing series on the above subjects.

Entries within each topic are arranged alphabetically by author or title. Call numbers for materials available in the Library of Congress are included to facilitate recovery of works cited.

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1. NUCLEAR DEVELOPMENTS IN SOUTH ASIA

## GLOSSARY OF TERMS

AEMC	The Atomic Energy Minerals Center at Lahore is responsible for finding and recovering uranium ore, thereby filling a vital need stemming from boycotts of Pakistan by international nuclear fuel suppliers.
BARC	Bhabha Atomic Research Centre is located in north Bombay and is India's facility for research in and development of nuclear technology.
CHASHNUPP	Pakistan's Chashma Nuclear Power Plant, a projected 900-megawatt facility in Mianwali District, Punjab, was sanctioned in 1982 in order to create electrical power through light-water technology.
Cirus	A Candu-type Canadian-built plant located at BARC, Cirus was commissioned in 1960. India reprocessed spent fuel from Cirus to make the plutonium for its 1974 "peaceful nuclear explosion;" Cirus has a capacity of 40 megawatts.
Dhruva	One of the world's few high-flux reactors, Dhruva, which went critical in August 1985, is solely the product of Indian research and production, and therefore, falls completely outside IAEA safeguards. Dhruva shares facilities with Cirus, its neighbor in the BARC, has a 100-megawatt capacity, and can produce 30 kg of plutonium annually.
IAEA	International Atomic Energy Agency (United Nations)
Kalpakkam	This Tamil Nadu town is the site of the Indira Gandhi Atomic Research Center (formerly MAPP) and gives its name to a 40-megawatt fast-breeder reactor which went critical in August 1985 using plutonium-uranium carbide fuel.

KANUPP            Karachi Nuclear Power Plant, a 125-megawatt reactor, was supplied by Canada on a turnkey basis and became operational in 1972.

MAPP-1            Madras Atomic Power Project's first Candu-type 235-megawatt unit was commissioned in January 1984. The center is located at Kalpakkam, Tamil Nadu, and was produced completely by Indian research and technology; consequently, its units and the plutonium they produce fall outside IAEA inspection safeguards. MAPP units are intended to provide electricity for Madras. In October 1985, MAPP was renamed the Indira Gandhi Atomic Research Center, but new names for individual plants have not been made public.

MAPP-2            The second unit at Madras Atomic Power Project is also a Candu-type 235-megawatt plutonium and heavy-water reactor. MAPP-2 went critical in August 1985 and was commissioned in October of the same year.

NPT                The Nuclear Nonproliferation Treaty was ratified by the UN General Assembly in 1968. India and Pakistan contend that the NPT discriminates against nonnuclear states, but Pakistan has repeatedly offered to sign if India will do so simultaneously. In the UNGA, Islamabad voted in favor of the NPT.

PAEC              Pakistan Atomic Energy Commission

PINSTECH          Pakistan Institute of Nuclear Science Technology, the site of a US-supplied 5-megawatt "swimming pool"-type reactor installed in the 1960s

Tarapur            The Tarapur nuclear power plant, located near Bombay, was built by the United States. It has a capacity of 600 megawatts and can annually produce 50 to 80 kg of plutonium. Tarapur and its products come under IAEA inspection safeguards.



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Joshi, V.T. "'Indian N-Bomb Tests' Upset Pakistan." Times of India (Bombay), 30 June 1987, p. 16.

A report from New Delhi citing unnamed American and European sources indicates that India will soon test a deliverable nuclear bomb. The report was attributed to a Pakistani news agency and appeared on the front page of the Pakistan Times and other major Pakistani newspapers. The report also claims that India was on the verge of testing a bomb in Rajasthan in 1984 but was deterred when American spy satellites detected drilling activity.

Oberdorfer, Don. "Pakistani Native Charged With Nuclear-Export Plot." Washington Post, 15 July 1987, p. A19.

Arshad Z. Pervez, a Canadian national of Pakistani origin, was arrested on 14 July and held without bond on charges of attempting the illegal export of material for Pakistan's nuclear weapons program. According to documents presented to the US District Court in Philadelphia, Pervez approached a US Customs agent who was posing as a Commerce Department licensing official. Pervez paid the agent \$1,000 to obtain an export permit for 50,000 pounds of maraging 350 steel, a superhard alloy used in the construction of uranium enrichment centrifuges. He also sought the agent's help in purchasing beryllium, a rare metal used in the detonation of atomic weapons.

Pervez was working for a retired Pakistani brigadier general, Inam ul Haq, who runs an import-export firm in Lahore. News of the arrest sparked off a renewed debate in Congress over continued US aid to Pakistan.

"PAEC Has Reached High Level Of Maturity." Muslim (Islamabad), 4 July 1987, p. 8.

The article outlines the activities of the Pakistan Atomic Energy Commission (PAEC) and argues that the commission has made major contributions to the overall socio-economic development of the country. PAEC's achievements include:

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- 1) approaching self-sufficiency in nuclear power generation, including the production of nuclear fuel, spare parts and essential materials such as zirconium;
- 2) contributing to agricultural and medical research, with the introduction of new high-yielding crops and the construction of nine nuclear medical centers;
- 3) establishing training institutions such as the Center for Nuclear Studies (CNS) that provides courses in engineering, physics, health, and quality control.

"Pakistan And The Smugglers." Washington Post, 27 July 1987, p. A10.

In this editorial, the Post details Pakistan's illegal efforts to import nuclear weapons technology and rejects the Pakistani Government's claim that it was not involved in the recent attempt to smuggle 25 tons of maraging steel from the United States. The editors argue that the US Government will be forced to cut off aid unless Pakistan is willing to open its nuclear facilities to international inspection.

"Pakistan Ready to Upgrade Pact With European Country." Nucleonics Week (New York), vol. 28, no. 24, 11 June 1987, pp. 2-3.

A spokesman from the Pakistani Foreign Office confirmed that Pakistan is currently negotiating with a western country for cooperation in the upgrading of safety features at the Karachi Nuclear Power Plant (KANUPP). (Unnamed nuclear industry sources indicated that West Germany is the country in question.)

The spokesman also admitted that Pakistan has been procuring equipment for its nuclear program from Leybold-Heraeus but claimed that these purchases were "completely in conformity with the regulations of the supplier countries." Leybold-Heraeus, a West German firm, is currently under federal investigation for the alleged

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illegal transfer to Pakistan of gas centrifuge enrichment plant blueprints and other enrichment components.

Prakash, Sanjiv. "Is India On The Verge Of Unveiling A Nuclear Weapons Program?" Defense & Foreign Affairs Daily (Washington), vol. XVI, no. 84, 5 May 1987, p. 3.

The author, the South Asia Bureau Chief for Defense & Foreign Affairs Daily, examines the recent flurry of Indian diplomatic activity in Washington and concludes that India is preparing to announce a nuclear weapons capability. He argues that recent developments in the Pakistani nuclear field have forced the Indian Government to proceed with its own atomic bomb. At the same time, domestic political pressures are making it increasingly difficult to maintain an anti-nuclear stance. As a result, Prakash claims, the Gandhi Government will soon go public with its weapons program. In order to forestall negative reactions in the international arena, Delhi is sending its top Foreign Office staff to test the water in Washington.

"RAPS-I Was Restarted May 22 And Then Shut Again." Nucleonics Week (New York), vol. 28, no. 24, 11 June 1987, p. 6.

Malur Srinivasan, Chairman of the Department of Atomic Energy, confirmed that RAPS-I has recently been shut down again to conduct further tests on its chronically leaking end-shield. Until now scientists have been unsuccessful in their attempts to plug the leaks with remote-control tools. Srinivasan gave no indication of when the unit might be put back into operation and said that decommissioning was still under consideration.

Sharma, Kalpana. "Hazards of Nuclear Power." Indian Express (Bombay), 3 June 1987, p. 8.

The author argues that the Indian Department of Atomic Energy (DAE) has shown an insufficient concern for safety and calls for the establishment of an independent statutory

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agency to monitor the nuclear industry. The proposed agency would include members of environmental groups and the public. Sharma also details the criticisms that anti-nuclear groups have raised about nuclear plants currently under construction:

1) The Kakrapar plant in Surat district of Gujarat is sited in an earthquake-prone area inhabited by poor adivasis (aborigines). The population most endangered by the plant will benefit least from its construction.

2) The Kaiga plant in Karnataka is being built in one of the country's last remaining tropical rain forests. Within a radius of 50 kilometers from the plant are eight reservoirs (either completed or under construction). Radioactive leakage from the plant could therefore affect the water supply over a large region. In addition, the plant site is not far from Konya, where a major earthquake occurred in 1968.

3) The Narora plant on the banks of the Ganges in Uttar Pradesh is also within an earthquake-prone zone and is taking up extremely fertile agricultural land.

4) The Nagarjuna Sagar facility scheduled to be built on the banks of the Krishna River in Andhra Pradesh falls within a highly populated area and therefore violates DAE's own norms for siting.

"Soviets Offer Knowhow On Atomic Energy Use." Hindu (Madras), 18 March 1987, p. 9.

Mr. Alexander Skrinsky, head of the Institute of Nuclear Research in Novosibirsk, announces that the Soviet Union will supply BARC with a high-powered electron accelerator for use in radiation technology research. The accelerator operates at 20 KW, with 1.7 million electron-volts (MeV) of energy. Delivery is expected between April and July 1987. An important application of this type of accelerator is the disinfection of grain for long-term storage.

Scientists at the Center for Advanced Technology (CAT) in Indore are currently meeting with colleagues from the

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Novosibirsk Institute to discuss the construction of a dedicated synchrotron radiation source at the CAT facility. Indian scientists have shown interest in a similar device of 450 MeV at the Atomic Energy Institute in Moscow. CAT will either purchase the device or build it with Soviet assistance.

U.S. Congress. House of Representatives. House Foreign Affairs Committee. Hearings On Aid To Pakistan, 22 July 1987. Unpublished statements.

On 22 July 1987, the Asian and Pacific Affairs Subcommittee and the International Economic Policy and Trade Subcommittee of the House Foreign Affairs Committee held a joint hearing to discuss the status of US military and economic aid to Pakistan in the light of the Pervez case. (Arshad Pervez was arrested on July 14 and charged with the illegal export of maraging steel for the Pakistani nuclear weapons program.) According to a 1985 amendment to the Foreign Assistance Act (the Solarz Amendment), the United States is prohibited from providing aid to any country which seeks to import illegally any items that might contribute significantly to its ability to manufacture a nuclear explosive device. Following is a summary of the major statements and documents submitted in the hearing:

1) Asian-Pacific Subcommittee Chairman Stephen Solarz stressed the importance of US non-proliferation efforts and their continued credibility around the world. He argued that, unless Pakistan is willing to offer definitive evidence of the peaceful nature of its nuclear program, US law will require a total cessation of American aid.

2) In a letter to President Reagan, House Foreign Affairs Committee Chairman Dante Fascell and International Economic Policy and Trade Subcommittee Chairman Don Bonker proposed a temporary suspension of aid to Pakistan pending a reassessment of bilateral relations. The purpose of the suspension would be to spur a resumption of the "mutual confidence and candor" that characterized previous relations between the two countries. The Congressmen suggested that this action be taken "without prejudice to the ongoing criminal proceedings and to the question of

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whether the provisions of the Foreign Assistance Act have been violated."

3) Richard Murphy, Assistant Secretary of State for Near Eastern and South Asian Affairs, argued that US non-proliferation interests in South Asia would not be well served by a total withdrawal of US aid to Pakistan. In addition, he pointed out that the State and Justice Departments had shown a strong commitment to uphold the Solarz Amendment, and were cooperating to insure a full investigation of the criminal case with both American and Pakistani assistance.

2. TACTICS AND ORGANIZATION OF THE AFGHAN RESISTANCE



## GLOSSARY OF TERMS

Commander	A resistance fighter who is recognized as a military leader in local or regional areas of conflict; some commanders are respected outside their own regions, but there is not yet a coordinated, nationwide, insurgent command in Afghanistan. The title commander is the only honorific or rank recognized by the resistance movement.
Dushmani	(singular: <u>dushman</u> ) Soviet pejorative term for Afghan insurgents; it means "bandit" and originated during the 1930s Central Asia resistance.
DRA	The Democratic Republic of Afghanistan was established as the result of a coup led by Mohammad Nur Taraki and Hafizullah Amin in April 1978. Deteriorating internal security led to military intervention by the Soviet Union in December 1979 and Amin was killed by the invading troops. The Soviet invasion transformed armed resistance toward the modernistic but arbitrary reforms of Taraki and Amin into a war of national liberation.
KHAD	DRA intelligence service whose operations are entirely directed by its many Soviet KGB advisors. The acronym stands for Khedmat-Etala'at-e-Daulati (State Information Service). KHAD received ministerial rank in January 1986.
Mujahideen	(singular: <u>mujahid</u> ) This Islamic term means "holy warrior," but it is most often used as a name for Afghanistan's resistance fighters, who consider their campaign a <u>jihad</u> (holy war) to drive unbelievers from their country.
Spetznaz	Soviet special warfare troops under the GRU (Military Intelligence Directorate) of the Soviet Ministry of Defense. These highly mobile units are deployed throughout Afghanistan for operations which require more skill or loyalty than is commonly displayed by Soviet or DRA troops.

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"Afghan Guerrillas Down Transport." Washington Post, 14 August 1987, p. A23.

Radio Kabul blames "extremist elements" for shooting down a Soviet-made Antonov (An)-26/CURL civilian transport with a US Stinger missile. Radio Kabul claims that 2 of the 12 victims were children.

Bodansky, Yossef. "SAMs in Afghanistan: Assessing the Impact." Jane's Defence Weekly (London), vol. 8, no. 3, 25 July 1987, pp. 153,154.

The author asserts that the introduction of the US Stinger to the resistance arsenal has had a limited, perhaps even negative, impact on the mujahed anti-communist campaign in Afghanistan. Although he concedes that for a time DRA/Soviet aircraft losses were high, the author believes that the Soviets have initiated effective new countermeasures. These include the installation of protective devices on helicopters and pilot instruction in anti-SAM maneuvers. The most effective countermeasure, however, remains the interdiction and eradication of SAM units by KHAD/KGB tracking teams. These efforts, claim the author, have been largely successful and a significant number of Stingers and British Blowpipes have been captured and, in some cases, even purchased from the resistance. The net result of the introduction of SAMs into the balance of the war, has been the suppression and destruction by artillery of the resistance infrastructure and supporting population in areas previously left intact.

Dejevsky, Mary. "Najib Offers Power-sharing Deal to Kabul Opposition." Times (London), 22 July 1987, p. 7.

At a press conference held in Moscow on 21 July, DRA leader Najib offered 22 ministerial posts to representatives of opposition groups in promotion of his "national reconciliation" scheme. These positions included those of vice-president, deputy prime-minister and foreign minister. These concessions did not include, however, weakening the dominant position of the Communist Party.

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"Intense Fighting Reported in 2 Afghan Cities." New York Times,  
5 August 1987, p. A5.

Fighting around Afghanistan's 2 largest cities, Kabul and Qandahar, has been so heavy that pilots of the state airline have refused to fly the 320-mile stretch between them. Aound-the-clock fighting has been responsible for shortages of basic supplies in both cities. The intensity of combat, reportedly the highest of the war to date, has unnerved some Soviet officers in Kabul who, according to diplomats, have stripped insignias of rank from their uniforms to avoid immediate execution if captured.

Rubin, Barnett R. "An Avenue Out of the Afghan War." New York Times, 14 August 1987, p. A31.

The author believes that the "Alliance" of Afghan resistance parties--the Islamic Unity of the Mujahideen of Afghanistan--should seize the moment and discuss the possible composition of a transitional government in Afghanistan with UN-mediator, Diego Cordovez. Cordovez, he asserts, has made great progress in "promoting a convergence" of efforts among Afghans to reach a political settlement of the war. A draft treaty is virtually finished and lacks only the precise timetable for a Soviet troop withdrawal. While the Soviet-backed DRA advocates a pull-out stretched out over 18 months in opposition to Pakistan's proposed 7 months, the author suggests 12 months is a relatively easy compromise. The time is right, he exclaims, for the resistance parties to clarify their position, shelve their differences, and approach Cordovez--if only to test how sincere the Soviets' intention to extricate themselves from their military quagmire.

Steele, Jonathan. "Najibullah in Kremlin for Policy Review." Guardian (Manchester), 21 July 1987, p. 6.

DRA leader Najib and Soviet leader Gorbachev met in Moscow for their first joint review of Kabul's "national reconciliation" initiative. The initiative, which includes proposed talks to set up a coalition government, was turned

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down by the resistance leaders. The author speculates that the DRA and Soviet leaders are deciding whether further concessions will be necessary to make "national reconciliation" an attractive proposal.